

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Patent application of Francis J. Bensur : Atty. Docket No. 9325-37 (148069)  
Serial No.: 09/783,795 : Art Unit: 1772  
Filed: February 15, 2001 : Examiner:  
For: Laminate Packaging Material : Nolan, Sandra M.

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**DECLARATION OF FRANCIS J. BENSUR  
SUBMITTED PURSUANT TO 37 C.F.R. 1.132**

I, Francis J. Bensur, hereby declare as follows:

1. I am a currently a Senior Account Developmental Manager in the Flexible Packaging Division of Sonoco Products Co. of Hartsville, South Carolina ("Sonoco"). I have a Bachelors of Science Degree in Chemistry. I also have 10 years of experience in the field of flexible consumer packaging.

2. I am the sole inventor of the invention disclosed and claimed in the above-identified application ("the '795 application"). I understand that this declaration is to be submitted to the U.S. Patent Office as part of a response to a final action for the '795 application mailed from the U.S. Patent Office on February 28, 2003.

3. I am a joint inventor of U.S. Pat. No. 6,502,986, entitled "package having re-sealable end closure and method for making same" and sole inventor of the invention disclosed and claimed in the utility patent application published as Pub. No. US 2002/0110656A, entitled "flexible non-foil-based retort package."

4. I have read the February 28, 2003 final action and the August 12, 2002 office action that is referred to in the final action. I have also reviewed U.S. Pat. Nos. 5,763,028

("Matsumoto"), 6,407,155 ("Qian"), 4,903,841 ("Ohsima"), 5,387,449 ("Kunz") and 5,486,408 ("Sentendrey"), relied on by the Examiner in rejecting the claims of the '795 application.

5. The invention of the '795 application relates generally to laminate materials used for flexible consumer packaging. More particularly, the invention relates to laminates used in making "retort" packaging that must be capable of being heated to a temperature sufficient for pasteurizing or sterilizing a contained substance, such as a food product for example.

6. It was known in the art of flexible consumer packaging at the time the '795 application was filed to include a barrier layer in laminates used for retort packaging for preventing passage of contaminating substances through the laminate. As disclosed in Matsumoto, and described in the background section of the '795 application, one such prior art laminate included three layers made from plastic films and a barrier layer made from a metal foil or a metal oxide. This prior art laminate further included a urethane adhesive for bonding adjacent layers of the laminate together.

7. The '795 application discloses and claims a laminate in which clay platelets are included in an adhesive that bonds adjacent layers of the laminate to each other. The clay platelets function as a barrier preventing passage of contaminants through the laminate.

8. As is described in the specification of the '795 application, including clay platelets in the adhesive eliminates the need for a separate layer of material, such as the metal foil or metal oxide of the prior art laminate discussed above, to provide a contaminant barrier.

9. I understand that the Examiner acknowledges that Qian, which discloses extruded film layers, does not disclose a clay-containing adhesive. I also understand that the Examiner, however, has taken the position that modifying Qian to include clay platelets in an adhesive instead of a film layer would have been obvious asserting that an adhesive that bonds adjacent film layers of a laminate becomes an "intermediate layer in the finished laminate."

10. Films that are used in packaging laminates, such as the extruded films disclosed in Qian, are formed in layers having a specified thickness. Laminating adhesives such as that disclosed and claimed in the '795 application, on the other hand, are applied to a film layer in

relatively small amounts, as a liquid, using a laminating machine. As a result, those skilled in the art of flexible consumer packaging use weight (or mass) measurements to specify the amount of adhesive to be applied rather than thickness. In the laminate examples provided in Matsumoto (cols. 8-13) for example, the film layers are specified in terms of thickness while the adhesive used to bond the film layers is specified in terms of grams per square meter. An alternative measure of weight used to specify adhesive amounts is pounds per ream.

11. An adhesive applied by a laminating machine at a typically specified weight of 1.5 pounds for ream results in an adhesive thickness of approximately 1.5 to 2.0 microns. The thickness for the adhesive is much smaller than the thickness for film layers used in packaging laminates. Qian, for example, states that film layers for packaging laminates are most preferably extruded in thicknesses ranging between 25 and 75 microns (col. 20, line 63 to col. 21, line 3).

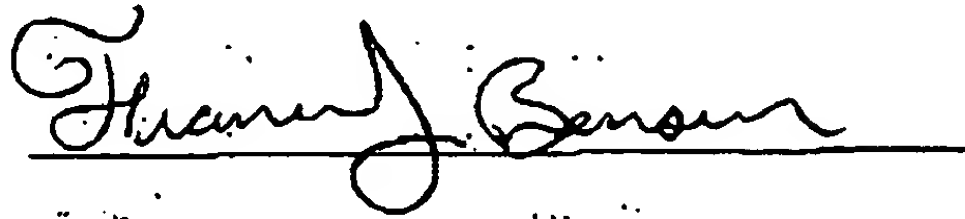
12. As described at page 7 of the '795 application, the clay-containing adhesive is a two-part type adhesive. The adhesive includes a hydroxy-terminated prepolymer, to which the clay platelets have been added, and an aliphatic isocyanate prepolymer. Those skilled in the art when the '795 application was filed would have understood that the introduction of the clay into the hydroxy-terminated prepolymer would need to be done in a manner that ensures proper moisture content and distribution of the clay platelets within the liquid phase of the adhesive.

13. Those skilled in the art of flexible consumer packaging at the time the '795 application was filed would have recognized the above-described differences between film layers used in packaging laminates and adhesives used to bond the film layers to each other. Contrary to the assertion made by the Examiner, a clay-containing composition extruded in film layers would not have suggested to one skilled in the art of flexible consumer packaging including clay platelets in a laminating adhesive in the manner claimed in the '795 application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 7/25/03



Francis J. Bensus  
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